

Appln No. 10/039,952

Reply to Office Action of April 15, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-17 (Cancelled)

18. (Currently Amended) A method for producing an amine from a target ketone, comprising:

creating a mutated enzyme that catalyzes reductive amination or transamination of the target ketone; and

providing the mutated enzyme in a reaction mixture comprising the target ketone under conditions sufficient to permit the formation of the corresponding amine to thereby produce the amine,

wherein the ketone is not a 2-ketoacid and the amine is not an alpha-amino acid.

19. (Cancelled)

20. (Currently Amended) The method of claim 18, wherein the mutated enzyme is an amino acid dehydrogenase.

21. (Currently Amended) The method of claim 20, further comprising providing an existing enzyme that catalyzes the reductive amination of a ketone amino acid dehydrogenase, wherein the mutated enzyme is created by mutating the existing enzyme amino acid dehydrogenase, and further wherein the mutated enzyme catalyzes reductive amination of the target ketone at a greater rate than the existing enzyme amino acid dehydrogenase.

22-80 (Cancelled)